

# Review Test Submission: Quiz 6.8

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Course	Intro to Control Systems - Fall 2020 Section Group I67
Test	Quiz 6.8
Started	10/6/20 11:55 AM
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Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	2 minutes
Results Displayed	Submitted Answers, Incorrectly Answered Questions

Question 1

1 out of 1 points



The Hurwitz criterion can be used to determine...

Selected Answer: Whether all roots of the characteristic equation are in the open left-half plane.

Question 2

1 out of 1 points



The Hurwitz criterion can be applied to which of the following? (More than one may be correct.)

Selected Answers: Third-order systems  
First-order systems  
Second-order systems

Question 3

1 out of 1 points



For second-order systems with characteristic equation  $\Delta(s) = s^2 + a_1s + a_0$ , which of the following is true?

Selected Answer: All coefficients  $a_i$  must be positive.

Question 4

1 out of 1 points



For third-order systems with charcateristic equation  $\Delta(s) = s^3 + a_2s^2 + a_1s + a_0$ , which of the following must hold for the system to be stable?

(More than one answer may be correct.)

Selected Answers: All coefficients  $a_i$  must be positive.  
 $a_1a_2 - a_0 > 0$